

FIG. 1

Step response of speed control system ($n=1$)
AC servo motor of 500W : $J=0.1 \times 10^{-3} \text{kgm}^2$, $T=10\text{ms}$, $k_1=1.9 \times 10^{-3}$

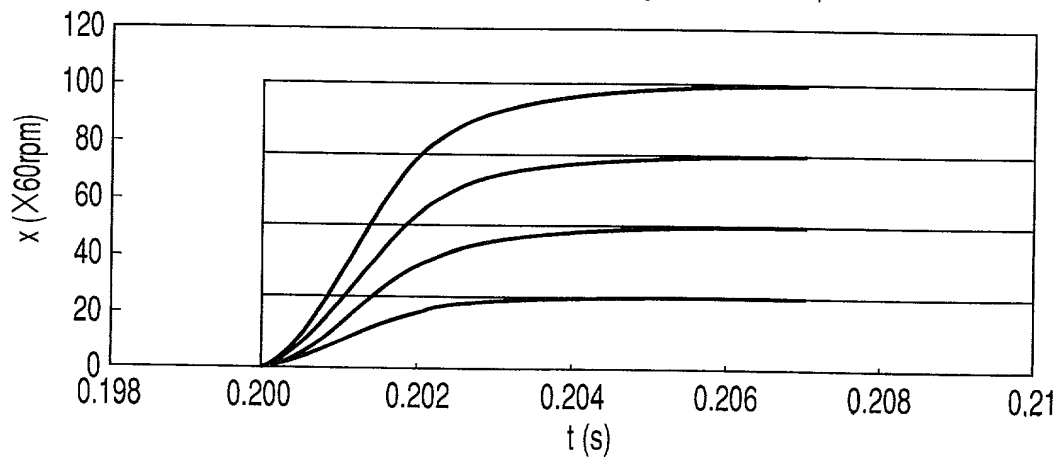


FIG. 2

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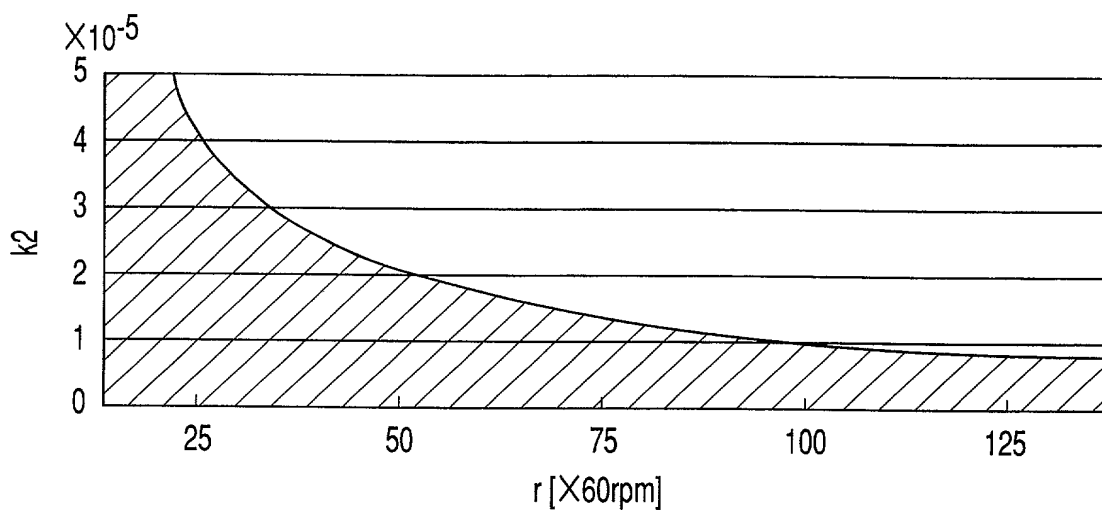


FIG. 3

Settling time to k_1 and k_2 in the range of $\zeta > 1$ (set point : 6000rpm)

$k_1(\times 10^{-3})$	$k_2(\times 10^{-3})$	Settling time [ms]
20	0.4	0.5
40	0.8	0.3
60	1.3	0.2
80	1.7	0.2
100	2.1	0.1

FIG. 4

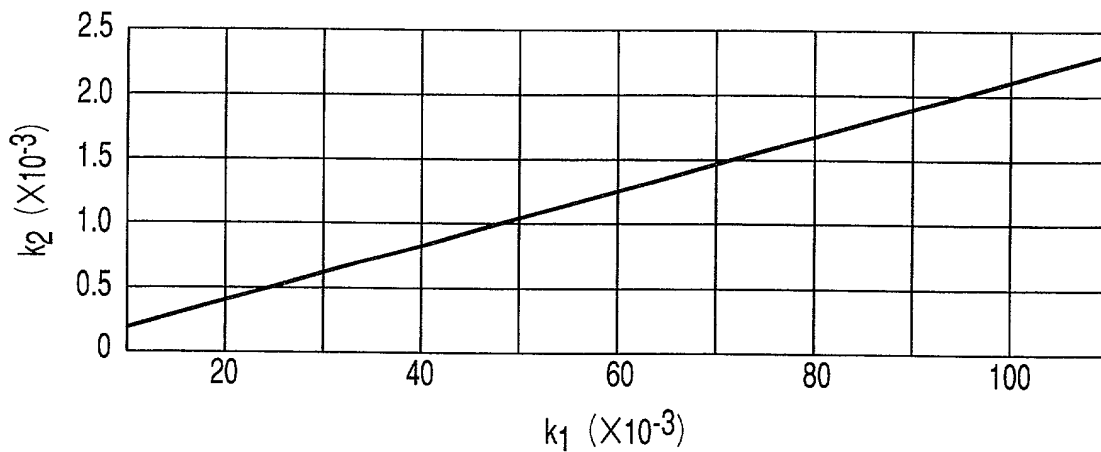


FIG. 5

Step response of speed control system ($n=2$)
AC servo motor of 500W : $J=0.1 \times 10^{-3} \text{kgm}^2$, $T=10\text{ms}$, $k_1=1.9 \times 10^{-3}$

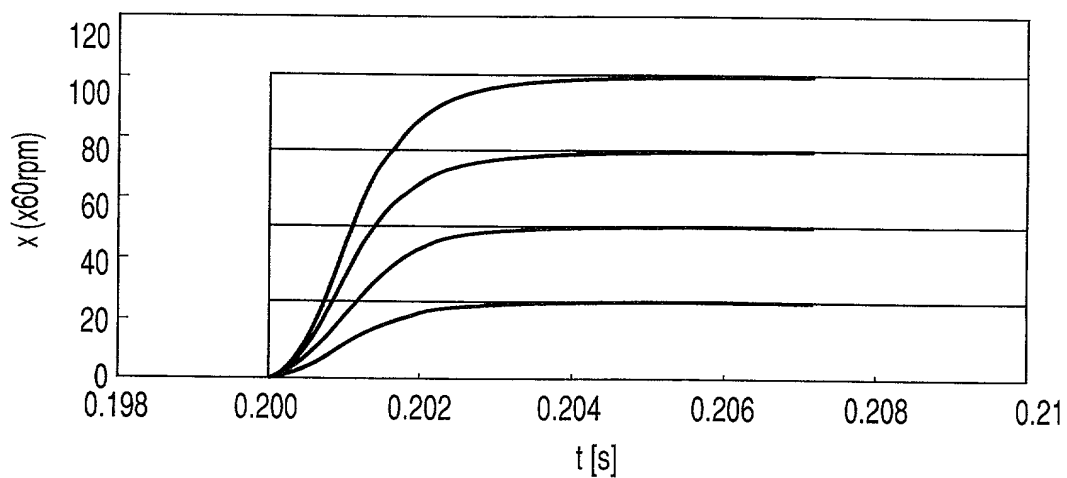


FIG. 6

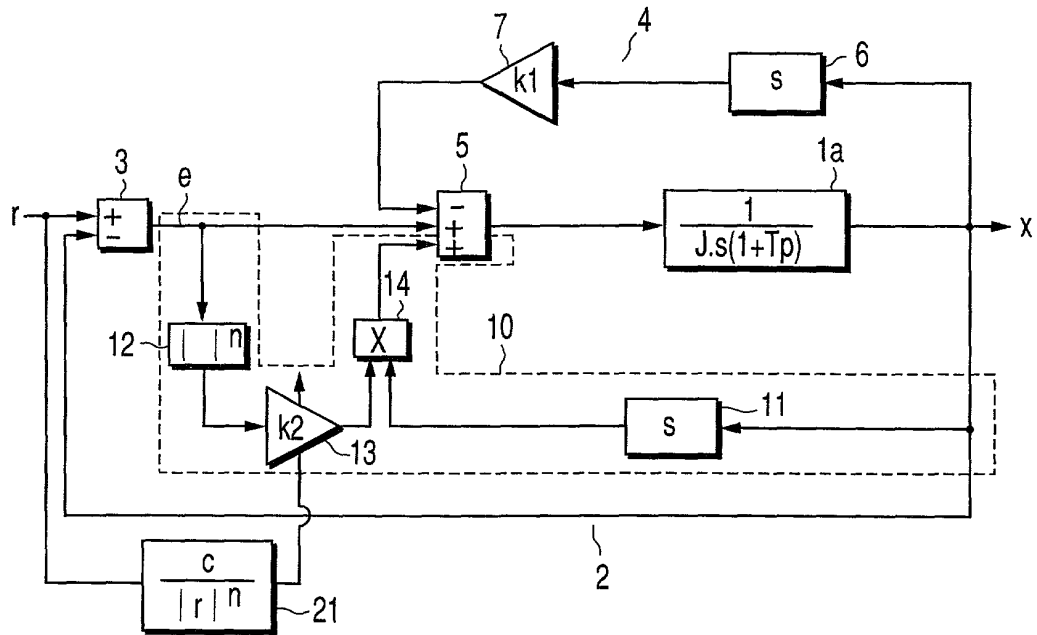


FIG. 7

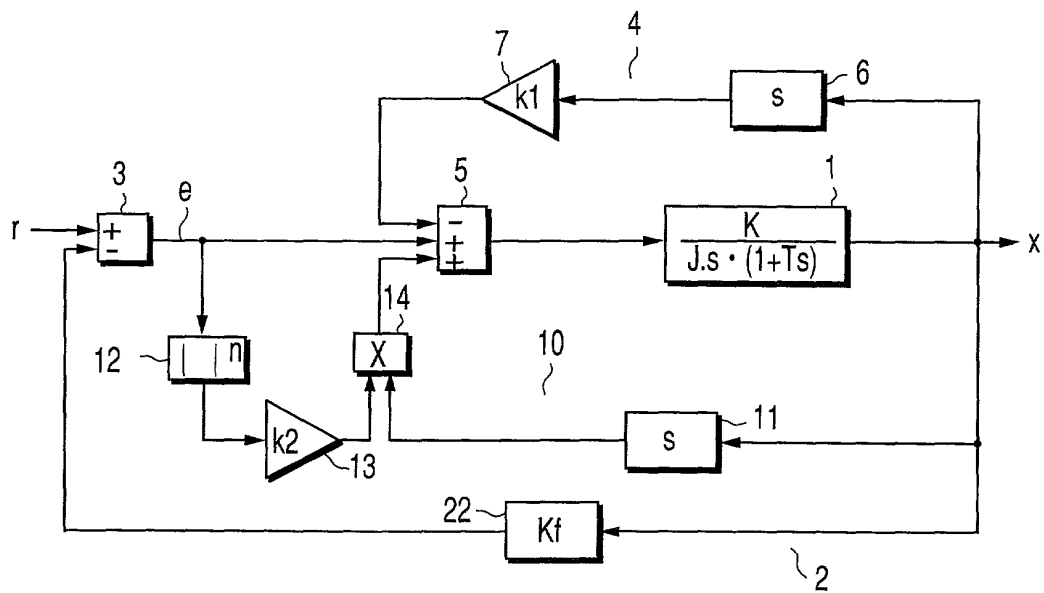


FIG. 8

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